PX318

PxGround 12

User manual

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Manufacturer reserves the right to make modifications in order to improve device operation.

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1 Description

PxGround 12 is a LED lamp designed for dynamic lighting of architectural details.

The PX318 lamp uses high-performance OSRAM Oslon LEDs. They are divided into three groups. The product has built-in a baffle against the unpleasant glare effect. It slightly reduces the beam angle of output light, but gives the opportunity to use the lamps in installations where light quality and all the accompanying phenomena must be at the highest quality.

Another advantage of the PX318 is the ability to change the angle of the LED module inclination inside the lamp without moving the entire lamp housing. This allows to change independently the luminous flux direction (to within ±10°) to the mounted housing.

The lamp is using efficient LEDs that provide a variety of color options and allow to achieve different brightness levels. The device is manufactured in versions with colors of emitted light such as: cold white, neutral white, warm white and RGB. In addition, universal design makes it possible to be used to illuminate the historic architecture, as well as in modern buildings. Maximum power consumption of the lamp is 30W. Each of the PX318 version can be fitted with optics of light distribution angles of 6, 14, 28 or 47°.

The lamp requires a 24V DC power supply, the control can be done using voltage drivers such as PX254 or PX282. Finally, the product is equipped with a LEDs power-limiting circuit depending on temperature. This solution allows for long-life and trouble-free operation of the product. After reaching a

temperature of 55°C it starts to reduce the current supplied to the LEDs and at a temperature of 80°C they are totally switched off.

2 Safety conditions

Caution! Before installing, connecting and using the lamp you have to absolutely read this document.

The following symbols are used to underline important information on security conditions on the product and in this manual.

Danger!
Risk of loss of life and health.

Warning!
Fire hazard.

Warning!
LED light emission. The risk of rye damage.

Warning!
The risk of burns.

Warning!
Red the instruction manual.

Caution!

Do not look at the LEDs, LEDs can cause damage or eye irritation. Do not look at the light source with any optical devices that focus the light rays.

Light is harmful to unprotected eyes, can cause irritation, eye damage or even loss of eyesight.

While working outdoors in normal conditions, the housing unit can heat up to +65°C. Make sure that accidental contact with the device during use is impossible.

In case of improper usage of the product it may cause a risk of serious injury or death because of the threat of fire.

During its installation and use PX318 the following rules must be strictly observed:

1. Installation should be performed by a person holding the appropriate qualifications, according to the instruction manual.
2. Lamp may only be connected to stabilized voltage 24V DC with current-carrying capacity compatible with technical data.
3. All the conductors should be protected against mechanical and thermal damage.
4. In the event of damaging any conductor, it should be replaced with a conductor of the same technical data.
5. All repairs and connections of outputs can be made with cut off power supply.
6. Do not connect to the power supply to device with visible damage.

7. All sudden shocks, particularly dropping, should be avoided.
8. Do not switch on the appliance if the housing is leaking.

NOTE! The lamp can be powered only from a power supply.

3 Information on version

The PX318 lamp is available in several versions that differ from each other in angles of the lenses used.

Below there is a description of designation of the PX318 models:

PX318-XX-RGB

XX – lens angle:	RGB, WNC – color LEDs:
6 – 6°	R – red
14 – 14°	G – green
28 – 28°	B – blue
47 – 47°	W – warm white
	N – neutral white
	C – cold white

4 Illumination installation

To install the illumination, proceed as described below, trying to arrange the components so that the order of re-assembly does not cause any problems. The correct arrangement of the sealing elements of the reflector is particularly important – the gaskets should properly adhere to their designated places. Never use mechanically damaged gaskets.

The assembly of the illuminator has been divided into two stages: wiring connection (Stage I) and lamp assembly (Stage II).

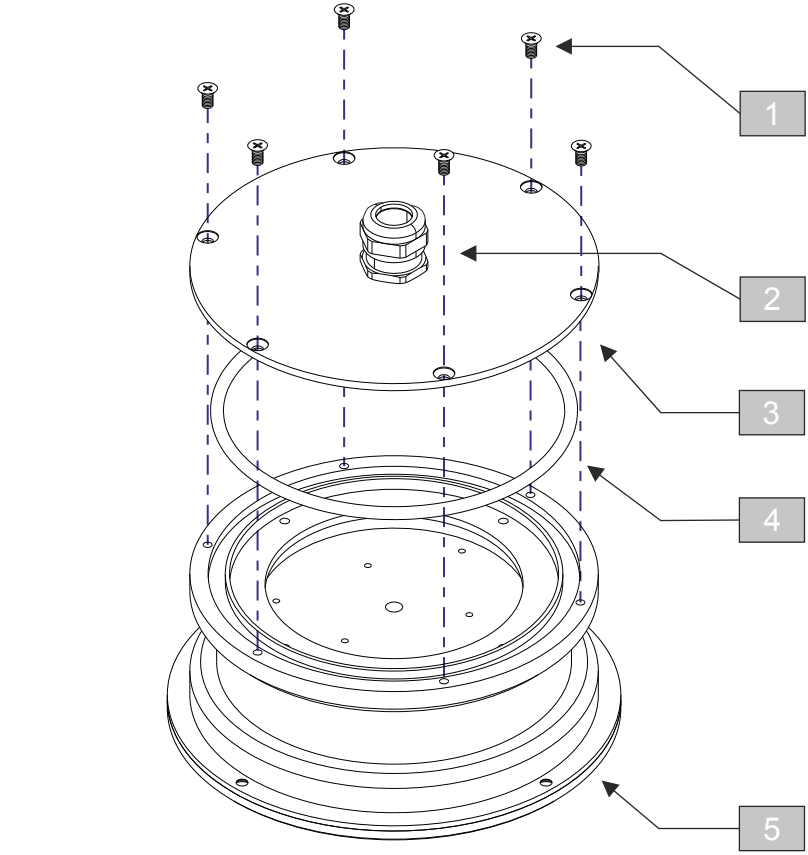
4.1 Stage I: powering up

1. Unscrew 6 screws [1] on the back of the lamp.
2. Remove the rear cover [3] and the cable penetration [2], as well as the O-ring gasket [4].
3. Connect the cables (see chapter 5 Connection scheme for more information).
4. Pass the wires through the cable penetration [2].
5. Place the O-ring gasket [4] and the rear cover [3] along with the cable penetration [2] in the correct position (4.3 Components of the rear part of the lamp).
6. Tighten all the screws [1] by tightening them gradually and evenly.

4.2 Stage II: lamp assembly

1. Unscrew 6 screws [6] on the front of the lamp.
2. Remove the upper ring [7] with the gasket [8].
3. Carefully remove the glass [9].
4. Remove the O-ring gasket [10].
5. Install the lamp in a per-prepared position (4.5 Mounting the lamp in the ground).
6. Place the O-ring gasket [10], the glass [9] and then the upper ring [7] with the gasket [8] in appropriate places (4.4 Components of the front part of the lamp).
7. Tighten all screws [6] by tightening them gradually and evenly.

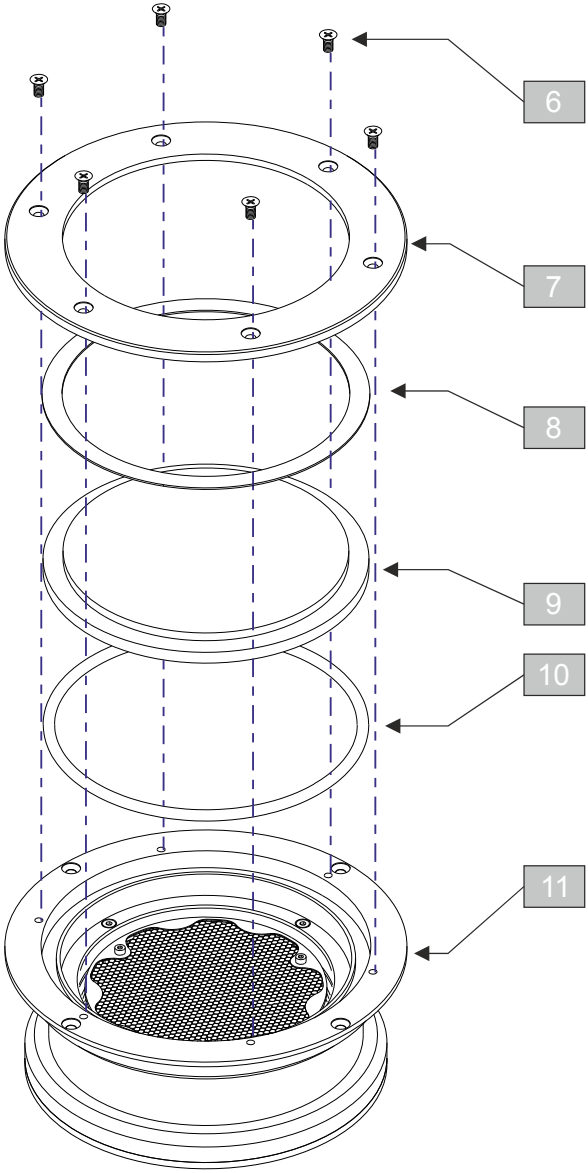
4.3 Components of the rear part of the lamp



Elements of the back of the illuminator:

1. 6 x recessed screw with M5x10 cross recessed socket
2. M25x1.5 seal wire
3. Rear cover
4. O-ring gasket 160 x 6
5. Lamp body

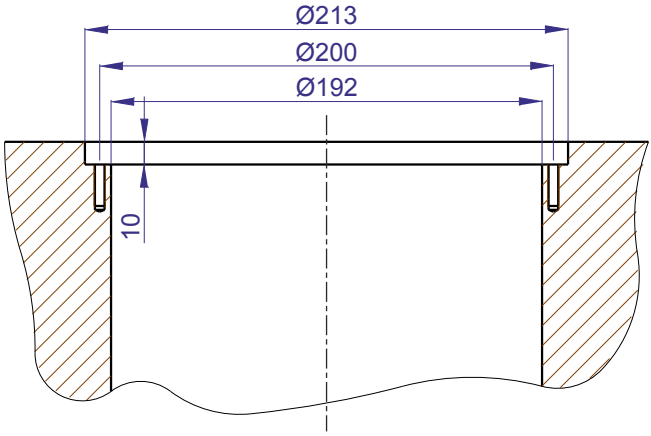
4.4 Components of the front part of the lamp

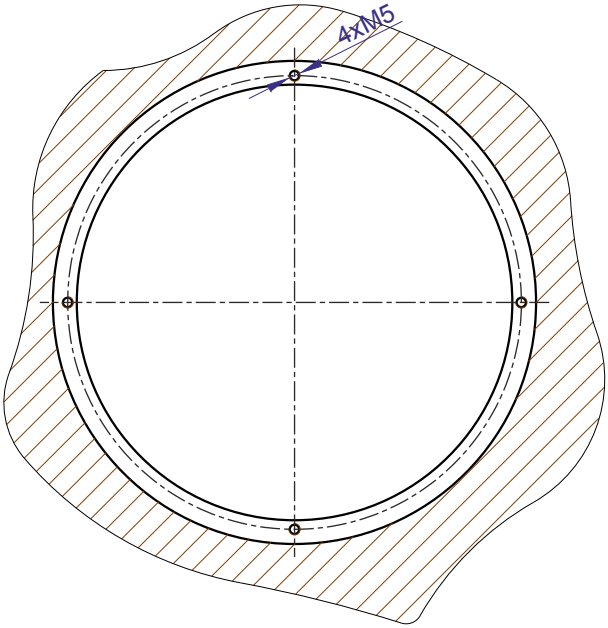


Elements of the front of the illuminator:

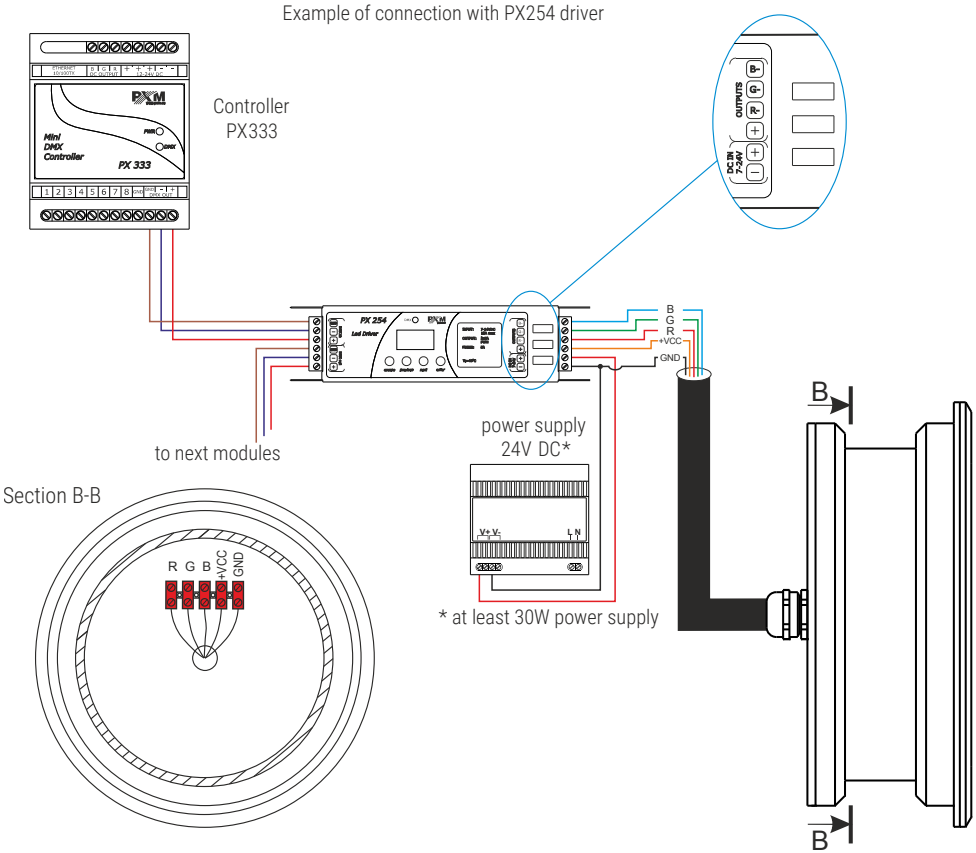
6. 6 x screw with M5x10 cross recessed socket
7. Upper ring
8. Flat seal 151x172x1
9. Tempered glass
10. O-ring gasket 160x6
11. Body housing

4.5 Mounting the lamp in the ground

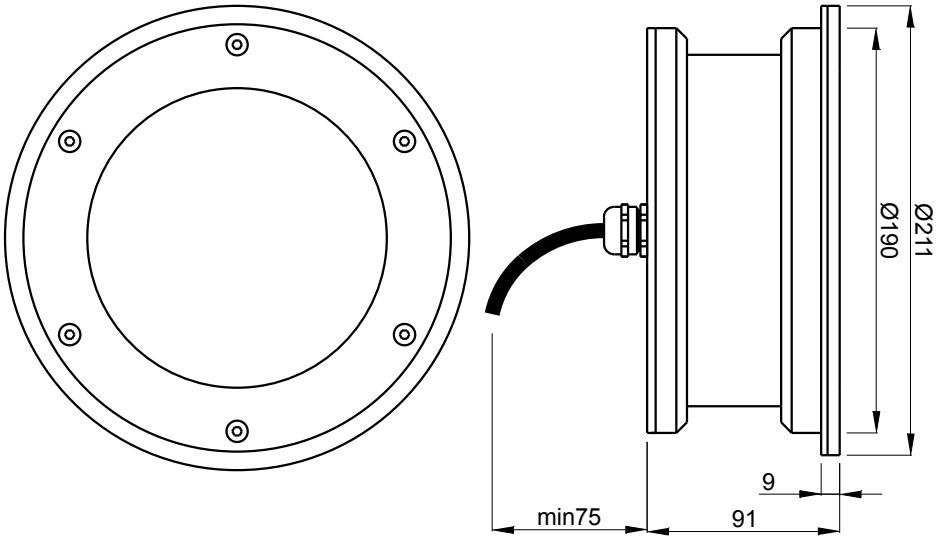




5 Connection scheme



6 Dimensions



7 Technical data

type	PX318
power supply	24V DC
power consumption	30W
control	voltage drivers, e.g. PX254, PX282
number of LEDs	12
light beam angle	6°, 14°, 28°, 47°
LEDs colors	RGB, WNC
CRI (for the WNC version)	min. 80
IP rating	IP67
housing material	acid-proof stainless steel (316L)
weight	6.7kg
dimensions	diameter: 211mm height: 91mm

Podłęże, 03.10.2019

DECLARATION OF CONFORMITY

PXM Marek Żupnik spółka komandytowa
Podłęże 654, 32-003 Podłęże

we declare that our product:

Product name:	PxGround 12
Product code:	PX318

meets the requirements of the following standards, as well as harmonised standards:

PN-EN IEC 63000:2019-01	EN IEC 63000:2018
PN-EN 60598-1:2015	EN 60598-1:2015
PN-EN 62471:2010	EN 62471:2008
PN-EN 61000-4-2:2011	EN 61000-4-2:2009
PN-EN IEC 61000-6-1:2019-03	EN IEC 61000-6-1:2019
PN-EN 61000-6-3:2008	EN 61000-6-3:2007

and meets the essential requirements of the following directives:

2011/65/UE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
Text with EEA relevance.

2014/30/UE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)
Text with EEA relevance.

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